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Message Text

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PAGE 01 BOMBAY 00672 151738Z

42
ACTION OES-05

INFO OCT-01 NEA-10 ISO-00 SS-15 SP-02 L-03 EB-07 INR-07

INRE-00 SSO-00 /050 W
---------- 016811
O 151242Z MAR 76
FM AMCONSUL BOMBAY
TO SECSTATE WASHDC NIACT IMMEDIATE 6246
INFO AMEMBASSY NEW DELHI NIACT IMMEDIATE

C O N F I D E N T I A L BOMBAY 0672

STADIS//

EO 11652: GDS
TAGS: TECH ENRG IN
SUBJ: INDIAN NUCLEAR FUEL EXPORT LICENSE PROCEEDINGS

REF: 060871

THERE FOLLOWS THE TEXT OF DR SETHNA'S VERBATIM REPLY TO THE NRC QUESTIONS. NOTE THAT SETHNA REQUESTS THAT INFORMATION BE TREATED AS CLASSIFIED CONFIDENTIAL.

BEGIN TEXT: (COMPLIMENTARY SALUTATION OMITTED).

1. THE FUEL REPROCESSING PLANT (FRP) AT TARAPUR IS UNDERGOING PRE-COMMISSIONING TRIALS. AS PER THE PROVISIONAL PROGRAMME, REPRO-CESSING OF TARAPUR SPENT FUEL IN THE FACILITY IS EXPECTED TO COMMENCE FROM SECOND HALF OF 1977.

2. THE OUTPUT FROM THE FACILITY WILL BE IN THE FORM OF PLUTONIUM OXIDE.

3. THE PLANS FOR DEALING WITH PLUTONIUM SEPARATED FROM THE SPENT FUEL FROM TAPS REACTOS ARE UNDER FORMULATION. ANY SUCH USE WILL, OF COURSE, BE IN CONFORMITY WITH THE AGREEMENTS IN THIS REGARD. IN CASE THE SEPARATED PLUTONIUM CANNOT TO MUTUAL ADVANTAGE BE RETURNED TO THE USA OR TRANSFERRED TO A THIRD
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PAGE 02 BOMBAY 00672 151738Z

PARTY IN A MANNER CONSISTENT WITH THE AGREEMENTS, IT WILL BE

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 04 MAY 2006

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 04 MAY 2006

STORED AT TARAPUR FOR THE TIME BEING. REPLIES TO THE QUERIES IN
THIS REGARD ARE AS FOLLOWS:-
3(A) CAPACITY OF THE FACILITY FOR STORING PLUTONIUM FROM TAPS
IS APPROXIMATELY 500 KG OF PLUTONIUM.
3(B) & (C) THE LIKELY ACCUMULATION OF TARAPUR PLUTONIUM IN
STORAGE AT THE REPROCESSING PLANT WILL DEPEND UPON OUR PLANS FOR
DEALING WITH IT.
3(D) APART FROM RETURNING IT TO THE US OR TRANSFERRING IT TO A
MUTUALLY AGREEABLE THIRD PARTY, THE OTHER LIKELY USES ARE:
I) RECYCLING IT IN THE TARAPUR REACTORS, AND
II) USING IT IN OUR FAST BREEDER PROGRAMME.
COMPREHENSIVE TECHNO-ECONOMIC AS WELL AS SAFEGUARDS AND
SECURITY ORIENTED STUDIES, WHICH HAVE BEEN INITIATED, WILL
NEED TO BE CONCLUDED BEFORE END-USE OR USES OF THE RECOVERED
MATERIAL CAN BE DECIDED UPON.

4. THE FACILITY FOR CONVERTING PLUTIONIUM NITRATE TO OXIDE IS A
PART OF THE FRP WHICH IS UNDERGOING PRE-COMMISSIONING TRIALS. THE
CAPACITY (3 KG OF PLUTONIUM/DAY) OF THIS FACILITY MATCHES THE
NOMINAL CAPACITY OF FRP WHICH IS 100 TONNES OF URANIUM PER YEAR.

5. NO QUERY BEARING THIS NUMBER. (DUE TO A MIX-UP IN TRANSMISSION
THIS QUESTION WAS NOT CONTAINED IN TRANSMITTAL TO SETHNA BUT J.C.
SHAH HAS RESPONDED ORALLY AND SAYS THAT THE ANSWER IS REALLY
CONTAINED IN THE LETTER'S REPLIES TO QUESTION 6 BECAUSE INDIA
DOES NOT CURRENTLY HAVE A FACILITY FOR FABRICATING MIXED OXIDE
FUEL AND DOES NOT SEE HOW SUCH A FACILITY COULD BE CONSTRUCTED
BEFORE 1978 OR 1979. HE SAYS THAT SOLUTION OT THIS PROBLEM
WOULD REQUIRE DPILDING OF "12-FOOT GLOVE BOXES" FOR WHICH
INDIAN SCIENTISTS DO NOT YET HAVE A SOLUTION.)

6. AS OF END JAN 1976, TAPS SPENT FUEL POOL HAD 443 IRRADIATED
BUNDLES CONTAINING APPROXIMATELY 294 KG OF PLUTONIUM. THIS IS
EXPECTED TO INCREASE TO ABOUT 400 KG BY THE TIME REPROCESSING
PLANT COMMENCES OPERATIONS WITH TAPS FUEL. APART FROM CONTAINED
PLUTONIUM, WE HAVE 60 TONNES OF LOW ENRICHED URANIUM (AVERAGE
ENRICHMENT 1.34. PER CENT). THIS MAY INCREASE TO ABOUT 82 TONNES
BY THE TIME SEPARATION OPERATIONS COMMENCE. THESE PROJECTED
FIGURES FOR PLUTONIUM AND URANIUM ARE SUBJECT TO OPERATIONAL
UNCERTAINTIES (NUMBER OF LEAKERS FOUND, ALTERATION IN REFUELLING
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PAGE 03 BOMBAY 00672 151738Z

OUTAGE SCHEDULES DEPENDING ON THE NEXT MONSOON AND OTHER SYSTEM
FACTORS, NEED TO REDUCE OUTPUT DUE TO DELAY IN RECEIVING
URANIUM HEXAFLOURIDE FROM U.S.A., ETC.) MENTIONED IN PREVIOUS
COMMUNICATIONS.
PLEASE TREAT THIS INFORMATION AS CONFIDENTIAL. END TEXT.
COURTNEY

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